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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,789	07/14/2003	Kazuto Hirokawa	2003-0960A	4090

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EXAMINER

SHAKERI, HADI

ART UNIT PAPER NUMBER

3723

DATE MAILED: 06/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/617,789

Applicant(s)

HIROKAWA ET AL.

Examiner

Hadi Shakeri

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9 and 21-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9,23 and 24 is/are allowed.
- 6) ☒ Claim(s) 1-8 and 22 is/are rejected.
- 7) ☒ Claim(s) 21 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

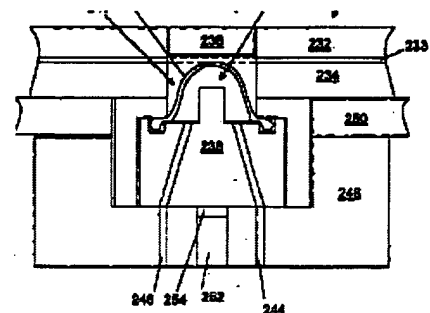
Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-8 and 22 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lehman et al. (US Pub '139).

Lehman et al. (US Pub '139) discloses all of the limitations of claim 1, i.e., a substrate polishing apparatus comprising a polishing table against which a substrate is pressed, a light-emitting and light-receiving device to emit measurement light from said polishing table to said substrate and to receive reflected light from said substrate for measuring a film on said substrate, a fluid supply passage for supplying a liquid for measurement to a fluid chamber provided at a light-emitting and light-receiving position of said polishing table, said measurement light and said reflected light passing



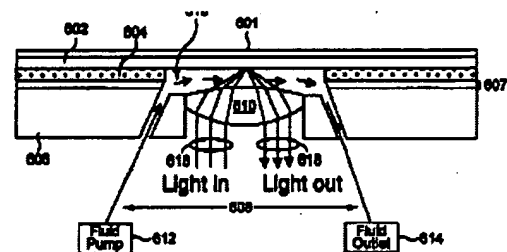
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through said fluid for measurement, and fluid supply control device for controlling supply of said fluid for measurement to said liquid chamber and wherein the flow rate of the fluid supply is controlled by controller (37) receiving the signals from the device (26), see page 16, paragraph 128 and also as indicated in paragraphs 13 and 168 the sensors are based on angular positioning of the pad relative to the substrate, however in the alternative providing the apparatus with angular sensors to provide information to the controller for enhancing the operation.

Regarding claims 2-8, prior art meets the limitations, it is noted that in an apparatus claim, the intended use and/or functional language not resulting in a structural difference are not accorded patentable weight, since the apparatus as disclosed is capable of performing the functions, i.e., with respect to the above claims, prior art discloses control device for controlling the supply and discharge of fluid (paragraph 128), as to how, or when the control activates and/or deactivates the supply and/or discharge does not further limit the apparatus, since the apparatus is capable of performing the functions, and meets the elements as recited, i.e., supply control device (claims 1-4); discharge control device, (pumps) claims 5-8.

4. Claims 1-8 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lehman et al. (6,707,540).

Lehman et al. (6,707,540) discloses all of the limitations of claim 1, i.e., a substrate polishing apparatus comprising a polishing table against which a substrate is pressed, a light-emitting and light-receiving device to emit measurement light from said polishing table to said substrate and to receive reflected light from said substrate for measuring a film on said substrate, a fluid supply passage for supplying a liquid for measurement to a fluid chamber provided at a light-emitting and light-receiving position of said polishing table, said



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measurement light and said reflected light passing through said fluid for measurement, and fluid supply control device for controlling supply of said fluid for measurement to said liquid chamber, including the teaching that fluid flow rate may be adjusted for different applications, slurry, polishing speed...and that it may include a sensor arranged to determine when the sample is near the self clearing objective (14:24-30), except to indicate an angular sensor.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the invention of Lehman et al. (6,707,540) with angular sensors as a common and known sensors used in the art to accurately synchronize the operation of the pump.

Regarding claims 2-8, prior art meets the limitations, it is noted that in an apparatus claim, the intended use and/or functional language not resulting in a structural difference are not accorded patentable weight, since the apparatus as disclosed is capable of performing the functions, i.e., with respect to the above claims, prior art discloses control device for controlling the supply and discharge of fluid (US Patents '540, 14:10-15), as to how, or when the control activates and/or deactivates the supply and/or discharge does not further limit the apparatus, since the apparatus is capable of performing the functions, and meets the elements as recited, i.e., supply control device (claims 1-4); discharge control device, (pumps) claims 5-8.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-8 are provisionally rejected under the judicially created doctrine of double patenting over claim 9 of copending Application No. 10/854,250 in view of Lehman et al. (6,707,540). This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is anticipated by claim 9 of the copending application, i.e., valve regulating the supply to the hole, which inherently controls the discharge, except for type of sensor, a modification within the knowledge of one of ordinary skill in the art as indicated above.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Response to Arguments

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8. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

9. Claims 9, 23 and 24 are allowed.

10. Claim 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hadi Shakeri whose telephone number is (571) 272-4495. The examiner can normally be reached on Monday-Thursday.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Hadi Shakeri
Primary Examiner
Art Unit 3723
June 4, 2005